



**National
Aeronautical
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and without rotodome
Part 2 - Rolls Royce Engine
Simulation

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Abstract : The mathematical models and data used in the offline nonlinear simulation of the HS-748 aircraft with and without rotodome have been described in Part I. In this document, the issues related to the simulation and validation of Rolls Royce Dart MK 531 Engine against Rolls Royce results are reported. Also the responses of basic and AEW aircraft with single and twin engines operative have been presented. The thrust/engine for different throttle settings speed and altitudes have been given in table look up form for design and analysis purposes. Simulation studies indicate that there is no deterioration in handling the AEW during asymmetric power or during the failure of port/starboard engine.